GYNECOLOGY

UNDER THE CHARGE OF

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Treatment of Uterine Cancer.—TAYLOR (*New York State Jour. Med.*, 1920, xx, 8) very properly divides the treatment of uterine cancer into four parts, namely, publicity and education, prophylaxis, treatment of operable cases and treatment of inoperable cases. The importance of publicity, education and prophylaxis needs no further discussion in a brief abstract of this kind, therefore we shall confine our attention to his views on the treatment of cancer after the diagnosis has been made. Our definition of an operable case is frequently changed. A few years ago, before radium was in common use, many cases were considered operable that would now be placed in the inoperable class. Formerly, we knew that if a case was not operated upon there was no hope; therefore, we were led to operate on many cases in which the chance of cure was comparatively small and the risk of the operation correspondingly great. With the use of radium, however, the case is not necessarily hopeless without operation, and even if not permanently cured, life can be prolonged and the patient given great comfort by its use. The use of radium, however, has developed another class of cases, that is, the cases which were inoperable before treatment, but as the result of the use of radium become operable. In the treatment of operable cases, that is, cases in which the growth is limited to the uterus, with possibly a limited superficial involvement of the vaginal walls, Taylor believes that a combination of radium and operation offers the greatest hope of a permanent cure. It is his custom in such cases to make an application of radium, usually 100 mg. for twenty-four hours, and then after a few days, usually less than a week, to allow the possible reaction from the radium to subside, to do such abdominal hysterectomy as the case indicates. If the case is favorable he does a radical abdominal hysterectomy, with the isolation of the ureters and the removal of the pelvic connective tissue as far as possible. If the case is more difficult on account of a thick abdominal wall or any concurrent constitutional disease he would be satisfied with a simple hysterectomy. It has been stated that a hysterectomy after the use of radium is associated with greater difficulty on account of increased liability to hemorrhage and to the absence of the usual planes of cleavage. It has not been Taylor's experience that the increased difficulty has been sufficient to contra-indicate an operation following the use of radium; there may be some increased bleeding, but in no case has this been difficult to control. There is usually some edema about the bladder fold and at the bases of the broad ligaments, but this has never interfered materially with the operation nor with the subsequent healing of the wound in any of his cases. Following the operation, and previous to the patient's discharge from the hospital, that is, at the end of three or four weeks, an application of radium to the top of the vagina is made. There are, of course, cases which are so far advanced that it would be folly to do anything other than to use morphin for the relief of pain and discomfort and proper douches for cleanliness. In these cases the possibility of causing irritation to the bladder or rectum, associated with additional discomfort, is such that the cases are more comfortable without any local applications of radium. Excluding these advanced hopeless cases, there has been nothing in Taylor's experience in the treatment of inoperable cancer of the cervix that has approached the use of radium in its results. It has advantages over the use of the cautery in that it can be applied without an anesthetic, with practically no discomfort to the patient; it requires but a short stay in the hospital, and the results are often striking. The treatment of the inoperable case that has changed into the operable class by the use of radium is open to various opinions. Taylor would be willing to take a considerably increased primary risk if by doing so there is a correspondingly increased chance of a permanent cure; in fact, it is his custom, if the case is a good operable risk, to do either a simple or a modified radical hysterectomy.

Ectopic Adenomyomata of Uterine Type.—Of Clinical as well as pathological interest are the ten cases reported by Mahle and MacCarty (*Jour. Lab. and Clin. Med.*, 1920, v, 218), representing extra-uterine and extratubal tumors, which were diagnosed at the time of operation as adenomyomata. These growths contained glandular portions resembling typical uterine mucosa, surrounded by a fibrous connective tissue and smooth muscle stroma, the latter in varying amounts. The distribution of the tumors was as follows: Umbilicus, 1; abdominal wall, 2; sigmoid, 1; groin, 2 and rectovaginal septum, 4. They point out that, pathologically, extra-uterine adenomyomata are identical in appearance regardless of where they are found. They differ grossly from adenomyoma of the uterus, in that the cystic areas are larger and the contents darker brown. Grossly the tumors are solid, fibrous and of a light gray color. Here and there white bands extend into the tumor substance, while between these bands are areas, dark brown to almost black, varying in size from the head of a pin to cystic areas 1 cm. or more in diameter. On pressure a dark brown fluid exudes from the larger areas. Clinically, these tumors give no consistent group of symptoms on which an accurate diagnosis can be made. However, their location and their slow growth, extending over a period of years, suggests benign tumors. Further, the occasional relation to the time of menstruation, of pain or swelling of the tumor, or less frequently a bloody discharge, should be very suggestive of adenomyoma. Surgically, these tumors, regardless of their remarkable infiltrative characteristics, should be differentiated from malignancy. Especially is this true of tumors in the pelvis, adherent to the sigmoid or the abdominal wall or other structures. Adenomyomata may be recognized grossly in most cases by the fibrous stroma, which contains cystic areas filled with a bloody, dark brown or serous fluid. The pathologist should distinguish adenomyoma from carcinoma by the regularity of gland structure with normal differentiated epithelial cells without mitoses, and, in most tumors, by the characteristic stroma surrounding the gland. He should also recognize that they are benign tumors, that they grow by invasion and do not metastasize. All of the cases here reported occurred in patients between the ages of twenty-nine and fifty years and pregnancy apparently had no influence, for 6 of the cases occurred in nulliparous women. Of the 10 patients 6 gave a history directly referable to the tumor; one stated that a tumor mass was found during operation elsewhere, for other symptoms of which the patient complained at that time. The remaining three patients had adenomyomata of the rectovaginal septum, which were so small that they were giving no trouble. In these cases the symptoms, when they were noted in the history, were enlargement, pain in the rectum or vagina at the time of menstruation, or a vaginal discharge.

Roentgenotherapy of Fibroids.—The results obtained in 400 cases of uterine fibroids that were personally observed while undergoing treatment by means of the roentgen ray is the basis of a communication from Beclere (*Arch. Radiol. and Electrother.*, 1920, xxiv, 254). Of these patients approximately 25 per cent. were over fifty years old while about 11 per cent. were under forty years, so that the largest group (64 per cent.) were between forty and forty-nine years old. Concerning the size of the tumors subjected to treatment, he states that 85 per cent. of the tumors were palpable through the abdomen before treatment. His technic consists of weekly seances each of which consists of two successive radiations, the one to the right, the other to the left of the median line of the abdomen, immediately above the horizontal rami of the pubis. Occasionally, when the uterus is retroflexed, when the fibroid occupies the cavity of the sacrum or the neck of the uterus, a third radiation is directed on the sacral region. Finally, if the dimensions of the tumor demand it, the surface of the abdomen is divided not only into two, but into three, four and up to six circular areas, which in turn, serve as portals of entry for the rays. Each irradiation is localized to a circular surface of 10 cm. in diameter, by the aid of a cylinder of lead glass opaque to roentgen rays. A thin disk of wood is interposed between the localizing cylinder and the abdominal wall which depresses, levels the surface, and distributes over a considerable area the weight of the cylinder, and serves by a gentle compression, to reduce the distance between the ovaries and the skin. In 60 per cent. of the cases, the treatment has not required more than twelve to fourteen of these weekly seances, and has not lasted more than two and a half to three months. In only 4 cases has the treatment failed to avoid surgical treatment for the hemorrhage, while in the majority of cases the periods were suppressed without having appeared more than two or three times after the start of the treatment. This menopause, prematurely provoked, was usually definitely established, although in 12 per cent. of the cases, the suppression of the periods was only temporary and the periods returned after several months or years. In these cases further treatment restored the menopause. In every case treated, not only was the growth of the tumor arrested but its size was diminished. Beclere firmly believes that the rays act directly on the fibroids, arresting their development and leading to a reduction in their size. He has found the treatment as efficacious before as after forty years of age and that it can be applied with equal success on either large or small tumors.

Relation of Pregnancy to Tumor Growth.—Having handled large numbers of mice with spontaneous tumors, SLYE (*Jour. Cancer Research*, 1920, v, 25) at once observed the great difference in the rate of tumor growth in the non-reproducing and in the reproducing females and she states that this same difference is noted in the rate of tumor growth in the non-reproductive and in the reproductive periods of the same female. In order to investigate this problem, thirty each of non-reproducing and of reproducing females with spontaneous tumors were selected. The tumors were all of the same type and of the same organ, viz., alveolar tubular carcinoma of the mammary gland, of which a daily observation is easily made. Without exception, the amount of tumor grown by a female while reproductive was strikingly less than during her non-reproductive period. Again, the amount of tumor grown by reproducing females was strikingly less than that grown by non-reproducing females. The normal course of these spontaneous tumors in mice that are not bred is very rapid, the mouse rarely living over six weeks and often less than a month after the appearance of her tumor. The tumors grow to a great size, frequently being as large as the body of the mouse. When, however, these tumorous mice are bred, the tumor scarcely grows at all during the reproductive period. The duration of the tumor is greatly prolonged, the mice frequently living nearly a year after the appearance of their tumors, during which time many bear from six to eight litters aggregating from twenty to thirty two young. When the mouse ceases reproducing, the tumors grow with tremendous rapidity and to great size, the female frequently surviving only six or eight days after the birth of the last litter. During this brief period the tumor grows to many times its size at the date of the last litter. In brief, during the six or eight days a mouse is non-reproductive, she grows enormously more tumor than during the eight months or a year while she is reproductive. From these observations, Slye concludes that cancer and reproduction, both being growth processes, draw upon the same energy residuum and are made possible by the same food, hence the food and energy used by one are withheld from the other. Therefore, if the female is constantly pregnant, energy and food are withheld from the tumor and it grows with extreme slowness. If there is a hiatus between pregnancies, or a termination of pregnancy, the energy which was running into reproduction is released and diverted into tumor which grows very rapidly. If tumor growth considerably antedates impregnation, the currents of energy are already being used for tumor growth and are with difficulty diverted for pregnancy, probably never wholly so. Hence when a female is well advanced in tumor growth before impregnation there are rarely any offspring brought to birth. When offspring are delivered, they are few, small, undernourished and rarely suckled.